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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/478,884 | 01/07/2000 | KAZUYUKI KURODA | 35.C14215 | 2326 |

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EXAMINER

SIMONE, CATHERINE A

ART UNIT PAPER NUMBER

1772

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/478,884

Applicant(s)

KURODA ET AL.

Examiner

Catherine Simone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,9,11-14,19-48,50,53,54 and 61-63 is/are pending in the application.
- 4a) Of the above claim(s) 24-47,53 and 54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,9,11-14,20-22,48,50 and 61-63 is/are rejected.
- 7) ☒ Claim(s) 2,19 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Withdrawn Rejections

1. The 35 U.S.C. 102 rejection of claims 1, 2, 4-8, 11-17, 19, 22, 23, 48-52 and 55-61 as anticipated by Aksay et al. of record in Paper #22, Pages 3-5, Paragraph #4 has been withdrawn due to Applicant's amendment in Paper #23.
2. The 35 U.S.C. 103 rejection of claims 9, 10, 18, 20 and 21 over Aksay et al. of record in Paper #22, Page 6, Paragraph #6.

Claim Objections

3. Claims 9, 50 and 61 are objected to because of the following informalities: In claim 9, line 2, the word "contains" is repeated twice. In claim 50, line 2, the word "A" should be deleted. In claim 61, line 3, the word "A" after "end" should be deleted and a "." should be inserted after "end". Appropriate correction is required.

New Rejections

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitations “the polymer is aligned in a direction, which is different from an alignment direction of the tubular pores” in claim 3 and “the polymer alignment direction and the tubular pores alignment direction are substantially orthogonal” in claim 4 are deemed vague and indefinite. Clarification is requested.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. **Claims 1, 4, 5, 9, 11-14, 20, 21, 22, 48, 50, and 61-63** are rejected under 35 U.S.C. 102(e) as being anticipated by Hamada et al. (6,177,181).

Regarding **claim 1**, Hamada et al. discloses a structure comprising a first portion containing a polymer (Fig. 1, #2) and a second portion formed on the first portion (Fig. 1, #3),

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wherein the second portion has tubular pores (Fig. 1, #4), and the tubular pores are aligned uniaxially. Regarding **claim 4**, note the polymer (Fig. 1, #2) is aligned in a direction, which is different from an alignment direction of the tubular pores (Fig. 1, #4). Regarding **claim 5**, note the polymer (Fig. 1, #2) alignment direction and the tubular pores (Fig. 1, #4) alignment direction are substantially orthogonal. Regarding **claim 9**, note the first portion contains polyester (see col. 12, line 41). Regarding **claim 11**, note a substrate (Fig. 1, #1) on which the first portion is formed. Regarding **claim 12**, note the substrate is glass (see col. 10, lines 44-45). Regarding **claims 13 and 14**, note a surfactant is held in the tubular pores (see col. 16, lines 43-45). Regarding **claim 20**, note the first portion comprises polyester (see col. 12, line 41). Regarding **claim 21**, note the polymer is polyimide (see col. 5, line 15). Regarding **claim 22**, note the pores are hollow (Fig. 1, #4). Regarding **claim 48**, note the tubular pores (Fig. 1, #4) are parallel to the substrate (Fig. 1, #1). Regarding **claim 50**, note axes of the tubular pores (Fig. 1, #4) are oriented in a direction parallel to a surface of the substrate (Fig. 1, #1). Regarding **claim 61**, note the second portion (Fig. 1, #3) has one end at one side and another end at another side and the tubular pores (Fig. 1, #4) extend through from the one end to the another end. Regarding **claim 62**, note the tubular pores are mesopores (see col. 16, lines 49-52).

Regarding **claim 63**, Hamada et al. discloses a structure comprising a substrate (Fig. 1, #1); a portion formed on the substrate, wherein the portion (Fig. 1, #3) has tubular pores (Fig. 1, #4), and the tubular pores (Fig. 1, #4) are aligned uniaxially.

Allowable Subject Matter

8. **Claims 2, 19 and 23** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1, 2, 4, 5, 9, 11-14, 19-23, 48, 50, and 61-63 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (703)605-4297.


The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Catherine Simone
Examiner
Art Unit 1772
December 4, 2003



HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

12/12/03